

PROVINCE OF NOVA SCOTIA

REPORT OF THE

Provincial Tuberculosis Hospitals

NOVA SCOTIA SANATORIUM

AND

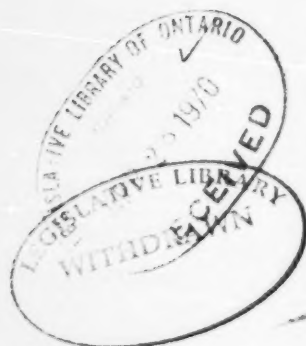
POINT EDWARD HOSPITAL

FOR THE YEAR ENDED DECEMBER 31

1968



Queen's Printer
Halifax, Nova Scotia





To His Honour,

THE HONOURABLE VICTOR deB. OLAND

Lieutenant-Governor of Nova Scotia

Sir:

I beg to present herewith the report of the Provincial Tuberculosis Hospitals.

I have the Honour to be

Sir,

Your most obedient servant,

RICHARD A. DONAHOE, Q.C.
Minister of Public Health



J. S. ROBERTSON, M.D., D.P.H.

Deputy Minister,

Department of Public Health

Sir:

I have the honour to submit the Eleventh Annual Report of Provincial Tuberculosis Hospitals. This is made up of the Sixty-Fourth Annual Report of the Nova Scotia Sanatorium and the Twentieth Annual Report of Point Edward Hospital. These reports cover the calendar year, 1968. They are preceded by Table A, a combined statistical report.

Respectfully submitted,

H. B. COLFORD, M.D., M.P.H.

Acting Administrator

Tuberculosis Control Services



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TABLE 2A

COMBINED STATISTICAL REPORT

FROM THE NOVA SCOTIA SANATORIUM AND POINT EDWARD HOSPITALS

CONCERNING THE PATIENT POPULATION, EXCLUDING TREATMENT OF SICK STAFF

FOR THE CALENDAR YEAR 1968

	Nova Scotia Sanatorium Est. 1904	Point Edward Hospital Est. 1949	Both Hospitals
Number of patients in residence January 1, 1968	127	52	179
Number of patients admitted as first treatment experience during 1968	216	58	274
Number of patients admitted having had previous treatment for tuberculosis	106	18	124
Number of patients transferred from another institution	17	10	27
Number of patients admitted to continue treatment (temporarily released)	0	5	5
Number of patients admitted for review or evaluation only	22	65	87
Total admissions during year	361	193	554
Number of patients in residence during year	488	245	733
Number of patients discharged during year	355	181	536
Number of patients in residence December 31, 1968	133	64	197
Number of patient days of hospital care during year	49,902	21,715	71,617

Sixty-Fourth Annual Report

INCLUDING

Medical Supplement

OF THE

Nova Scotia Sanatorium

FOR THE YEAR ENDING DECEMBER 31, 1968

GENERAL INFORMATION

Free treatment for tuberculous persons in Nova Scotia became effective July 1, 1946. Application for admission of a tuberculous or a suspected tuberculous patient to the Sanatorium is made by the family physician through the Director of the Health Unit of his district recommending further investigation and/or treatment for the patient. If approved, the Director then contacts the office of the Medical Superintendent requesting the admission which is authorized without delay.

The Sanatorium may be reached daily by the Dominion Atlantic Railway. Taxis meet all trains at Kentville, from which it is only a short drive to the Sanatorium. There are good bus connections daily to and from Kentville.

An information pamphlet, 'Health Ahead', is available from all Health Unit Directors and from the Sanatorium. Prospective patients should read this before coming forward for admission in order to be informed regarding clothing requirements, visiting hours for friends, and other pertinent matters.

NOVA SCOTIA SANATORIUM

Kentville, N. S.

1968

HONOURABLE RICHARD A. DONAHOE, Q.C.

MINISTER OF PUBLIC HEALTH

—ADMINISTRATIVE AND TECHNICAL STAFF—

MEDICAL

Full Time Staff

J. E. Hiltz, M.D., D.P.H., C.R.C.P., F.C.C.P. Medical
Superintendent
Helen M. Holden, M.D., C.R.C.P., F.C.C.P. Asst. Medical
Superintendent
J. J. Quinlan, M.D., C.R.C.P., F.C.C.P. Thoracic Surgeon
F. J. Misener, M.D., F.C.C.P. Radiologist and Anaesthetist
A. Laretei, M.D. Physician
Maria Rostocka, M.D. Physician
G. A. Kloss, M.D., F.C.C.P. Physician and Anaesthetist
E. W. Crosson, M.D. Physician

Consulting Staff

V. D. Schaffner, M.D., C.R.C.S. (C), F.A.C.S. Surgeon
D. M. MacRae, M.D., C.R.C.S. (C), F.C.C.P. Bronchoscopist
B. F. Miller, M.D., F.R.C.S. (Edin.) Consultant in Orthopedics
F.R.C.S. (Can.)
E. J. Cleveland, M.D., C.R.C.P. (C) Consultant in Psychiatry
C. E. Jebson, M.D., C.R.C.S. (C) Consultant in Urology

Courtesy Consulting Staff

D. H. Kirkpatrick, M.D. Anaesthesia

Dental

K. B. Eaton, D.D.S. Consultant Dentist

Administrative

R. J. Gerrard, B.Comm., C.A. Administrative Assistant

Nursing

Mrs. Hope M. Mack, R.N. Director of Nursing

Miss Madeline Spence, R.N. Director of Nursing Services
(retired 31. VIII. 68)

Mrs. Catherine Boyle, R.N. . . . Director of Nursing Education

Miss Elizabeth McPhail, R.N. Clinical Instructor

Mrs. Cheryl Lamoureux Clinical Instructor
(resigned 30. IV. 68)

Joseph Eli LeBlanc, R.N. Clinicial Instructor

Laboratory

Miss Helen Morse, R.T. Senior Technician

Mrs. Helen MacKinnon Technician

Mrs. Sheila MacPherson Technician

Miss Bonnie Kierstead Technician

Mrs. Elizabeth Knowlton, R.T. Technician

Mrs. Donna Mae Schofield, R.T. Technician

Mrs. Susan Martell, B.Sc. Technician

Mrs. Gertrude Cook, C.N.A. Assistant Technician

Glendon Gates Assistant Technician

Rehabilitation Department

D. M. Brown, B.A., B.Ed., M.S.W. Social Worker and Director

Mrs. Norma Cassidy, O.T.R. Occupational Therapist

Miss Marguerite MacLeod Academic Teacher

Miss Marion Lacey Academic Teacher

Mrs. Mary MacKinnon Academic Teacher

Mrs. Madelon Misner Academic Teacher

Mrs. Violet Silver Handcraft Instructor

X-Ray Department

Mrs. Carol LaFontaine, R.T. Senior Technician

William Mansfield Technician

Robert Ferguson Assistant Technician

Physical Medicine Department

Adi S. Jagosh, R.T. Inhalation Therapist and
Therapist-in-Charge
Robert Hartlen Assistant Therapist

Dietary Department

Miss Eileen Quinlan, B.Sc. Director of Dietary Service
Miss Virginia Allen, B.Sc. Dietitian
Miss Victoria Dekker, B.Sc. Dietitian

Medical Records Department

Hector McKean, R.R.L. Records Librarian
Mrs. Hazel LeFave Asst. Records Librarian
John Lawrence Asst. Records Librarian

Chaplains

Rev. Dale MacTavish, B.D., Co-ordinating Protestant
Chaplain Nova Scotia Sanatorium
Rev. G. E. Saulnier, Roman Catholic Chaplain
Rev. J. Douglas Archibald, D.D., United Church Chaplain
Rev. W. A. Trueman, Anglican Chaplain
Prof. (Rev.) Charles Taylor, B.A., B.D., (Acadia) S.T.M.
(Andover Newton) Chaplain- Supervisor, Clinical Past-
oral Training, Nova Scotia Sanatorium;
Associate Professor Practical Theology, Acadia Uni-
versity

Medical Records Committee

Dr. H. M. Holden, Chairman
Mr. A. H. McKean, Secretary
Dr. A. Laretei
Dr. M. Rostocka
Dr. G. A. Kloss
Mrs. Hope Mack, R.N.

Tissue Committee

Dr. G. A. Kloss, Chairman
Dr. F. J. Misener, Vice Chairman
Dr. J. J. Quinlan

Pharmacy Committee

Dr. M. Rostocka, Chairman
Mrs. Shirley Maxwell, C.D.C., Secretary
Dr. H. M. Holden
Dr. E. W. Crosson

Hospital Infection Committee

Dr. J. J. Quinlan, Chairman
Miss V. Skerry, R.N., Secretary
Dr. G. A. Kloss
Miss E. MacQuarrie, R.N.
Miss H. Morse
Mrs. J. Ells
Charles Sheffield

Fire Protection Committee

Dr. H. M. Holden, Chairman
R. J. Gerrard
B. Robinson
Mrs. Hope Mack, R.N.
Miss Eileen Quinlan
Mrs. J. Ells

It is my sad privilege at this time to present the sixty-fourth annual report of the Nova Scotia Sanatorium. By this time, I am sure that all of our readers are aware of the death of our beloved superintendent, Dr. J. E. Hiltz, which occurred very suddenly on March 22, 1969. Not only did this signify a personal loss to his associates at the Nova Scotia Sanatorium, but it has also removed one of the outstanding figures in the entire field of tuberculosis and other chest diseases. We who remain shall try to carry on in the same great tradition, striving toward the control and ultimate eradication of tuberculosis. The optimum of treatment must be provided for those who, unfortunately, are still the victims of this disease and, in so doing, we must remain abreast of all the latest trends and developments. Most important, we have to maintain a high standard as chest physicians in general, so that the Nova Scotia Sanatorium can uphold its prominence, not only so far as tuberculosis is concerned, but also as a diagnostic centre for other chest diseases. It is with these thoughts in mind that the statistical report for this institution is now presented.

This annual report covers the calendar year 1968 and is the sixty-fourth such report since the Nova Scotia Sanatorium was established in 1904 as the first provincially owned sanatorium in Canada.

During the year 1968 the number of patients treated decreased slightly, as compared with the previous year, a drop from 513 to 488 taking place (Table 1). The number of admissions (including readmissions and review cases) was identical (361) in each of the two years. The fall in the number of patients treated is explained by the difference in the number under treatment at the beginning of the year.

However, there was a rather pronounced decrease in the number of treatment days—nearly 19 per cent. This decrease involved chiefly the tuberculous patients. The patient population at the end of the year totalled six more than at the end of 1967.

Of the 361 patients admitted during the year, 216 (60 per cent) came to the Sanatorium for their first treatment experience (Table II). One hundred and twenty-three (40 per cent) were former patients here or elsewhere. Some of this latter group came as direct transfers from other institutions. Twenty-two patients

were admitted for complete assessment or review. In nine instances the disease proved to be inactive while twelve were classified as active.

Of the 334 patients discharged (Table IIIa), 184 or 55 per cent were diagnosed as cases of active pulmonary tuberculosis. Another 16 (5 per cent) had extrapulmonary tuberculous disease as the main diagnosis. The remaining 134 patients (40 per cent) did not have tuberculosis.

Nearly one half (47 per cent) of the first admissions discharged and one quarter (25 per cent) of the readmissions discharged were patients in whom the main diagnosis proved to be a condition other than tuberculosis. The diagnoses included a variety of conditions (Table IVa). The largest group, 19 cases, was comprised of the various types of pneumonia, while primary malignancy of the lung occupied second place, 16 cases having this diagnosis. In addition, four patients suffered from malignant disease of the lungs as a complication of their tuberculous disease, increasing our overall total of patients with this combined diagnosis of pulmonary tuberculosis and cancer of the lung.

In spite of the fact that the nontuberculous cases comprised 40 per cent of the total discharges, it is worthy of note that this group accounted for less than 10 per cent of the patient-day services during the year (4843 days). These patients are classified as to sex and age in Table IVb. The status on discharge is tabulated in Table IVb and it is of interest to note that 13 of these cases died at the Sanatorium.

Continuing the trend of past years, more than one half (55 per cent) of all nontuberculous discharges were referred to us by physicians within the Fundy Health Unit (Table IVd). This, again, is not unexpected as the Sanatorium is situated within this unit.

Comprising 40 per cent of the total discharges, it is obvious that the nontuberculous group of patients has become increasingly prominent. It should be pointed out that some of these patients are referred for diagnostic purposes, while others are referred with a tentative diagnosis of tuberculosis but prove to be victims of some other disease state. It is obvious that our physicians must maintain their interest and keep up to date with respect to all respiratory diseases. It also follows that the facilities at the

Sanatorium must be maintained at a high level, with the non-tuberculous as well as the tuberculous case in mind. Not only must the latest in pharmaceutical advances be provided, but also the most up-to-date technical developments such as the most modern equipment for assisted respiration.

Now, turning to the tuberculous patients, the discharge condition of these cases is given in Table V. Six persons were discharged in an unimproved condition, and a total of 19 died at the Sanatorium. In only ten of these cases, however, was death attributable to the tuberculosis itself, as nine of these patients died of complicating conditions.

It is again encouraging to note that fewer patients left the Sanatorium as irregular discharges. Indeed, although 10 patients departed from the institution against medical advice, for the first time not a single patient was discharged for disciplinary reasons (Table VI). The American Thoracic Society formula is used to calculate the rate of irregular discharges. The rate in 1968 amounted to only 5.9 per cent compared to 11.2 per cent and 24.2 per cent respectively in the two preceding years. Although the problem of irregular discharges has not been completely solved, this continued reduction in rate reflects credit not only on the patients themselves but also on the staff who carry out a continual educational program. This is done, not only on an individual basis, but also by a series of lectures in which the various disciplines take part, including members of the nursing, dietary, rehabilitation, and medical staffs. In addition, the Sanatorium publication "Health Rays" plays an important educational role. Needless to say, the crucial factor remains with the patient: i.e., the responsibility for persisting with the long tedious regimen that is so often necessary in order to bring their disease under control.

It should be pointed out that six of the ten irregular discharges were first admission cases, while the other four consisted of patients who had been readmitted on one or more occasion. One patient in this group was discharged with unstable disease. Fortunately, he was readmitted to another tuberculosis institution.

During the year 1968, 56 per cent of the patients discharged

for the first time, and 79 per cent of the readmission cases discharged, had either moderately or far advanced disease on admission (Table VII). These figures are almost identical with those of the year 1967, but do show considerable improvement as compared with the situation ten, twenty and thirty years ago. However, in this present day and age, early diagnosis should be possible. In fact, one wonders that the situation is not much better when one considers the modern methods of diagnosis, and the numerous facilities for investigation of the individual case. Further efforts should be made toward lowering this relatively large proportion of advanced cases. Needless to say, the period of in-hospital treatment is considerably less for the minimal than for the advanced case. In addition, chances of permanent lung damage are alarmingly high in the truly far advanced case of pulmonary tuberculosis, even if the bacteriological status reverts to the negative phase. Such an individual may become so handicapped that he or she must be classified as a respiratory cripple, this situation being commoner in the older age groups.

The admission ages of these patients discharged during 1968 are shown in Table VIIIa. With the exception of the year 1967, when a large number of high school students was admitted, there has continued to be a trend in recent years toward a gradual increase in the average age. During 1968, the average age for males was 45.3 years, and for females 31.7 years for the first admission discharges among the group. The average age of the readmitted discharges, taking male and female together, was 56.6 years.

The age and stages of disease of those patients in the Sanatorium on December 31, 1968, is noted in Table VIIIb. Unfortunately, 18 children under the age of 15 years were in residence at the end of the year. For the most part, these children contracted their tuberculosis from adults with advanced disease, often members of their own families.

Nearly one half of the patients in residence on December 31, 1968, had far advanced tuberculosis (Table VIIIb). Twenty-four were in the age group of 60 to 69 years, 16 in the age group of 70 to 79, and four were more than 80 years of age. These older patients must of necessity remain in an institution for an even longer period than the usual far advanced case, as surgical measures usually are not recommended, the antimicrobial agents

are not well tolerated on the average, and the facilities for continued care at home are inadequate for the proper care of these elderly individuals who frequently suffer from complicating illnesses.

The religious affiliation of our patients discharged is noted in Table IX, members of the Roman Catholic faith comprising 36 per cent of the total, the Anglican, Baptist, and United Churches totalling 50.5 per cent, and the remainder belonging to various smaller religious bodies.

Of the discharged patients, there were residents from every county except Inverness (Table X). Again, the largest number was from Halifax County which, including Halifax City, contributed 46 cases. Kings and Pictou Counties were runners-up with 22 and 21 cases respectively.

MEDICAL SERVICE:

As indicated previously, the medical service is comprised of doctors, nurses, dietitians, technicians, and auxiliary staff. All of these groups must be prepared to handle patients of all ages, including the very young and the very old. As noted in Table VIIIb there were 18 children under the age of 15 in residence at the end of the year, and 20 patients over the age of 70 years. In both these age extremes, one finds illnesses peculiar to the group. In other words, the special problems of both pediatrics and geriatrics continue to arise among our patients. One has but to study Tables III and IV to ascertain the myriad conditions that occur among our patients. Some of these conditions are peculiar to tuberculosis itself, particularly those associated with drug intolerance, and at the same time there continue to be a large number in whom the tuberculosis germs are resistant to the usual forms of therapy. One notes with interest the increase in the number of those infected with acid-fast bacilli resembling but not identical to the tubercle bacillus and therefore constituting a different form of disease. Special investigation has been carried out by our medical and laboratory staffs with respect to these particular conditions.

A full-time medical staff has continued to provide care for our patients on a 24-hour basis, seven days a week, with specialist

care available through the full-time staff, supplemented by a consultant service.

SURGICAL SERVICE:

This service has continued to be active, not only in the field of tuberculosis itself, but also in performing many sundry surgical procedures among our patients (Table XIA to F). Artificial pneumoperitoneum and primary thoracoplasty have now been relegated to the past. Pulmonary resection was carried out in 48 cases, in four of whom the purpose was that of diagnostic biopsy. In 34 cases, the resection was carried out for the removal of tuberculous disease. In one such instance it was necessary to remove the entire lung, while in eleven cases a lobe was removed. The operation of segmentectomy and wedge resection was carried out in the remaining 22 cases. In only two cases was lung cancer the condition requiring excisional surgery. This compared with a total of nine such cases in 1967. About one quarter (24 per cent) of the new cases of lung tuberculosis were treated surgically, as compared with 27 per cent, 32 per cent, 37 per cent, and 46 per cent in the previous four years. The readmission cases required excisional surgery in only 8 per cent, as compared with 24 per cent, 15 per cent, 12 per cent, and 15 per cent in the preceding four years.

No babies were born at the Sanatorium during 1968.

X-RAY SERVICE:

There was a slight increase in the volume of radiological examinations, the total being 7985 as compared with 7510 examinations in 1967. It is noted that there was a decrease in the proportion of outpatient x-ray examinations; i.e., from 3389 to 3168 outpatient films. There was a considerable drop in the developing service for the Department of Public Health, the number of films being processed reaching only 10,665, approximately two thirds of the 1967 level of 17,865 films. However, there had been an increase of 7500 during 1967, the previous level being resumed in 1968.

LABORATORY SERVICE:

A further increase in the volume of laboratory work was noted in 1968 (Table XIII). A total of 108,480 units of work was performed at the Sanatorium as compared with 106,020 in 1967, 99,573 in 1966, and 81,780 in 1965. However, there was a slight decrease in the total work performed by the Biochemistry, Public Health, and Red Cross Laboratories for the Nova Scotia Sanatorium, the total being 14,667 units as compared with 17,121 in 1967. Actually, the total units of work performed was almost identical during the two years, but considerably increased as compared with 1965 and 1966. The various procedures are itemized in detail in Table XIII. One notes in particular the increasing number of atypical mycobacteria under study in the course of the year. The laboratory staff is responsible also for the large number of blood gas analyses (181) as shown in Table XIVC (2).

OUTPATIENT SERVICES:

The regular outpatient clinics continue to be held on Tuesday and Wednesday afternoons, and on Saturday mornings. In the group of 3386 outpatient examinations during the year 1968 are included 1317 staff examinations. There were no new cases of active tuberculosis among this group. However, four reactivations were discovered among former patients referred for examination. A considerable proportion of nontuberculous chest conditions was diagnosed among the clinic patients, as was the case in 1967 also.

B.C.G. vaccination was carried out on 55 occasions for Sanatorium personnel and seven other persons were also vaccinated.

BRONCHOSCOPY SERVICE:

There was a decrease in the number of bronchoscopic examinations carried out in the year 1968, the total being 210 as compared with 260 examinations in 1967 (Table XIV B). This is a very active service and one would not have anticipated this decrease.

PHYSICAL MEDICINE SERVICE:

This department continues to be busy and, indeed, has been more active during 1968 than in the previous year (Table XIV C). Individual treatments totalled 18,117, including some combined procedures. Fortunately, the staff of this department has continued to work on a six-day week basis, as it is essential that certain of these procedures be done on a daily basis if at all feasible.

Insofar as diagnostic procedures are concerned, electrocardiograms totalled 356 as compared with 271 in 1967, and 73 audio-metric examinations were carried out. This year, blood gas analysis and pulmonary function testing were done in co-operation with the laboratory services.

MENTAL HEALTH SERVICE:

A total of 53 patients was seen in consultation by our consultant psychiatrist, with a total of 82 visits (Table XIVE). Although there was a slight increase in the number of patients, the total number of visits was somewhat less as compared with 1967. Our consultant psychiatrist lectured to the affiliate student nurses on 12 occasions during the year.

DENTAL SERVICE:

The Sanatorium was again able to provide essential dental services such as extractions, fillings, and prophylaxis at no cost to the patients. This has been made possible by the part-time services of a dentist. When artificial dentures are required, these can be provided at a reduced rate, as it is only necessary to cover the laboratory cost. Altogether, eleven such dentures were provided as noted in Table XIVF.

SICK STAFF CLINIC:

This clinic has continued to be very active on a seven-day week schedule and has provided a service for all staff members on an outpatient basis. Those members of the staff who live at the Institution are provided with full medical care, while those who live at home are referred to their family physician if absence from work for more than a day or two is involved. Prophylactic

measures include a physical examination in the case of each new staff member and necessary immunization procedures are carried out, particularly B.C.G. vaccination in the case of those individuals who have a negative tuberculin test. A mass Hong Kong influenza vaccination program was carried out in the fall of 1968, and many staff members took advantage of this opportunity. This effort seemed well worth while as there was a very low incidence of influenza at the Sanatorium. In all, 337 inoculations of Hong Kong influenza vaccine were given to patients and staff.

NURSING SERVICE:

The Registered Nurse staff increased during the year so that ward areas were more adequately covered by qualified staff. The Certified Nursing Assistant staff vacancies were filled from graduates from our School for Nursing Assistants. Part-time nurses account for approximately 25 per cent of the nursing staff.

Demands on nursing service increased with the number of patients admitted in the older age groups, the mentally ill and the mentally retarded. The Respiratory Unit has also increased the demands made on nursing.

In August, Miss Madeline Spence, R.N., Director of Nursing Service since 1951 and a staff member since 1939, retired. She was a devoted and loyal staff member whose service will be greatly missed.

Mrs. Kathleen Dakin, R.N. Head Nurse, came into the Nursing Office as Administrative Supervisor. It was necessary to carry on in the face of staff shortage in the administrative area as Miss E. Jean Dobson, R.N., was completing her second year at Mount St. Vincent University.

In-Service Education, planned by a committee chaired by Mrs. Gladys McKean, R.N., has put emphasis on the use of equipment in the Intensive Respiratory Unit and Physical Medicine Department. Trainex films in the Nursing Library have been of great assistance in our In-Service and Teaching programs. An orientation program (four weeks) is carried out for all new staff members. A "Know Your Hospital Tour" was arranged so that every nurse became acquainted with areas and equipment in use

and available. Staff were also rotated through Inhalation Therapy in the Department of Physical Medicine.

The teaching department, which is responsible for the post-graduate program, affiliation program for Tuberculosis Nursing, and the School for Nursing Assistants twelve-month course, had a difficult year due to shortage of instructors for the greater part of the time. Mrs. Catherine Boyle, R.N., was promoted to Director of Nursing Education in September. It is thanks to the efforts of Mrs. Boyle, Miss Elizabeth MacPhail, R.N., and the Head Nurses that we were able to carry on our educational program.

Two postgraduates completed the course in 1968, while a total of 245 student nurses affiliated in Tuberculosis Nursing during the year; two classes of nursing assistants entered the twelve-month course in the School for Nursing Assistants, and fifty-one nursing assistants graduated in April, 1968. We were especially pleased to have Dr. Harold Nason, Deputy Minister of Education, as guest speaker at the graduation.

Students from the School of Nursing, Mount St. Vincent University, visited the Sanatorium and a special program on tuberculosis was conducted for them.

The Nursing Library was moved to a small office area from the auditorium in Miller Hall so that it could be more easily accessible to staff and students. Mrs. C. Boyle, R.N., who attended an Institute for Librarians In Hospital Libraries, re-organized the Library with the assistance of Mrs. Eleanor Aalders, the secretary for the Department of Nursing Education.

REHABILITATION SERVICE:

The work of this department continues to be educational, diversional, recreational, and spiritual, as well as providing occupational therapy and social service.

The following statistics indicate briefly some of the work carried out by this department:

	Individual Patients Served		
	1966	1967	1968
Academic:			
School age (0-16)	21	33	26
Past school age (17-21)	14	31	7
Adults	15	6	12
By correspondence	0	0	0
New Canadian language	3	2	0
	<u>53</u>	<u>72</u>	<u>45</u>
Business, Industrial, etc.:			
Typing	7	12	6
Arithmetic, bookkeeping, etc.	10	8	1
Sewing	44	39	84
Bookbinding	1	0	0
Woodwork	10	25	2
Radio	0	0	0
Watch repair	0	0	1
	<u>72</u>	<u>83</u>	<u>97</u>
Handcrafts:			
a. In Shop:			
Leather	45	53	20
Weaving	10	3	0
Other	13	12	9
b. At bedside:			
Individual instruction	132	207	176
	<u>200</u>	<u>275</u>	<u>205</u>
	325	430	347

All academic subjects are available to children and adults from beginners through Grade XII. Most of the teaching now is carried out in the classrooms, but there is still a considerable amount of bedside teaching needed as well. Correspondence courses are available in a wide variety of subjects, but have been used very little during recent years, partly due to a sharp increase in price.

There is a well stocked library of books and magazines, and reading material is also rotated between the main library and the book shelves in recreation rooms on each ward. Our own radio station, SAN, and television sets in all sitting rooms, provide the

patients with entertainment and information. It is noted that a large number of patients now have their own radios, making our own radio system of less importance than in previous years.

Recreation for our patients is also provided in the form of regular card parties, an annual picnic sponsored by the faculty and students of the Clinical Pastoral Education Class, an outing provided through the services of the Callow Veterans and Invalids Welfare League, and drives to see the Apple Blossom Parade, autumn scenery, and Christmas lighting in Kentville.

As in other years, Christmas was made happier by the generosity of church groups, service clubs, and other groups and individuals. Without such support from the many friends of the Sanatorium our work would be very difficult, and our patients would go without many extras.

This service co-operates closely with our chaplains and church visitors in order to make their work more effective by means of co-ordination of efforts of the various clergy.

Health Rays magazine, the oldest Sanatorium magazine in North America, continues to be published monthly and provides informative articles regarding health matters. It is distributed free of charge to all patients at the Nova Scotia Sanatorium and at Point Edward Hospital and, in addition, reaches all Health Unit Directors, Public Health Nurses, and senior personnel of the Department of Public Health.

Miss Luran MacDougall, fourth year student at the Nova Scotia College of Art and Design, worked with this department during the summer months as a handcrafts instructor.

The work of the Rehabilitation Department is designed to make sanatorium life as acceptable and as pleasant as possible, and also to help keep patients mentally alert and prepare them to return to their communities and their work in an even more capable manner than when they entered the Sanatorium.

Chaplaincy Service:

Rev. Dale MacTavish continued to occupy the position of

Co-ordinating Protestant Chaplain on a half-time basis, spending the remainder of his time at the Kings County Hospital in Waterville. His services are made available by the Institute of Pastoral Training. In addition to his own regular visitation of patients, Mr. MacTavish continued to conduct the Protestant service in the Sanatorium chapel every Sunday, daily Vesper Service on the closed circuit Sanatorium radio, and the Sunday evening Vesper Service in rotation with other clergymen. During the chaplain's vacation period, Lic. S. Hopkins carried on these activities, as well as providing a "Quiet Hour" for the children throughout the year. The chaplain's department worked closely with the Rehabilitation Department at Christmas time and with all the churches in Kings County who take part in the usual Christmas projects. Special projects were also arranged at intervals throughout the year, and a happy spirit of co-operation continued within the chaplaincy service as a whole.

The annual six-week course in Clinical Pastoral Education was conducted during the months of May and June, and the chaplain took a considerable part in this project. He also took part in the course conducted during the regular University year, and attended the meeting of the Canadian Council for supervised pastoral education in Toronto in December, 1968.

PROFESSIONAL EDUCATION:

a) Medical: As has been the practice for many years, staff meetings were held twice weekly in order to discuss all those patients in whom a chest film or other special examination had been carried out since the previous meeting. New admissions are similarly discussed by the entire medical staff, and a decision is made as to future therapy. In addition to these staff conferences, regular meetings of the Tissue, Pharmacy, Medical Records, and Hospital Infection committees took place throughout the year. The Journal Club continued to meet on a weekly basis, with the exception of the summer months. In this manner, an attempt was made to keep abreast of the major developments in the various fields of medicine.

The Medical Superintendent attended the annual meeting of the Canadian Tuberculosis Association, and the Canadian Thoracic Society in Vancouver where he presented a paper entitled, "Breast

Cancer Following Multiple Fluoroscopies During Artificial Pneumothorax Treatment for Pulmonary Tuberculosis" of which he and Dr. J. A. Myrden were co-authors. Dr. G. Kloss also attended this convention.

The Medical Superintendent addressed the annual meeting of the New Brunswick Tuberculosis Association in October, 1968, and attended the various meetings of the Nova Scotia Tuberculosis Association and its Medical Advisory Board. He also took a special course sponsored by the American College of Chest Physicians, concerning silicosis, which was held in Pittsburgh.

The Assistant Medical Superintendent attended the meeting of the Royal College of Physicians and Surgeons in Toronto, as did our surgeon, Dr. Quinlan.

Dr. E. W. Crosson attended a workshop on Intensive Care from May 21 to 26 in Pittsburgh.

b) Nursing: Representatives from the Nursing Staff attended the Institute on Geriatric Nursing at Dalhousie University, the Institute on Inhalation Therapy in Halifax, the annual meeting of the O.R. Nurses, Registered Nurses Association of Nova Scotia, the Certified Nurses Association, and the Canadian Tuberculosis Association.

Miss E. Jean Dobson, R.N., from the Nursing Office supervisory staff, continued her studies at Mount St. Vincent University toward a Bachelor of Science in Nursing degree.

c) Dietary: Our dietitians attended the spring meeting of the Nova Scotia Dietetic Association in Halifax and the fall meeting which was held at the Cornwallis Inn, Kentville. The chief dietitian served as a member of the program committee for this meeting.

d) Rehabilitation: Mr. Donald Brown, Director of Rehabilitation, attended a Resident Course in Supervision at the Citadel Inn; Hospital Social Work seminars at the Halifax Infirmary, Grace Hospital, and the Nova Scotia Hospital; and the Atlantic Rehabilitation Workshop in St. John's, Newfoundland.

Mrs. Mary MacKinnon, principal teacher, attended Acadia University Summer School in order to upgrade her teaching qualifications.

d) Laboratory: Miss Helen Morse, R.T., attended the convention of the Nova Scotia Branch of the Canadian Society of Laboratory Technologists in Halifax. Senior laboratory personnel also attended some of the sessions of a Refresher Course for Medical Technologists held in Halifax in June.

e) Clinical Pastoral Training: During the summer of 1968, the Institute of Pastoral Training conducted its sixteenth annual six-week course at the Sanatorium. As noted previously, this program is especially designed for ministers, theology students, deaconesses, and missionaries. Various aspects of physical and mental health are considered, with a special orientation toward hospital visitation. This course is fully accredited and therefore university credits are given to those who complete the course. A similar course is given to Acadia University theology students during the regular university year, weekly classes at the Sanatorium constituting a portion of the syllabus.

The following students of various denominations were enrolled in the six-week course in 1968:

Rev. Douglas Herbett	Dartmouth, N.S.
Rev. Stewart B. Russell	Springhill, N.S.
Rev. Laird Stirling	Lucknow, Ontario
Rev. Robert H. Coote	Mahone Bay, N.S.
Lic. Woodrow H. Hewitt	Wolfville, N.S.
Lic. Edward A. Colquhoun	Wolfville, N.S.
Lic. William G. Duffett	Nictaux, N.S.
Lic. Ronald Brooks	Halifax, N.S.
Lic. Selwyn Hopkins	Sydney, N.S.
Miss Leanna M. Oickle	Wolfville, N.S.
Mr. Stephen Adkins	St. John's, Nfld.
Mr. Gerald E. Peddle	Lethbridge B.B., Nfld.
Mr. Harvey Bullen	Harbour Breton, F.B., Nfld.

MISCELLANEOUS:

The following staff members were retired on superannuation during the year:

1. Miss Madeline Spence, R.N., Director of Nursing Service, after 29 years of service.
2. Mr. Ross Hiltz, Housekeeping orderly, after 40 years of service.
3. Mr. Holloway A. Sheppard, Laundry Manager, after 28 years of service.

Our very best wishes are extended to these faithful and valuable staff members. We trust that they may enjoy long years of happiness in retirement.

During 1968, the following papers were published by staff members:

1. "Surgery in the Treatment of Pulmonary Tuberculosis" Dr. J. J. Quinlan, Medical Services Journal Canada, December, 1967.
2. "Pneumonectomy for Tuberculosis: Appraisal of Results in 143 Cases", Drs. J. J. Quinlan, V. D. Schaffner, and J. E. Hiltz, American Review of Respiratory Disease, February, 1968.
3. "Sarcoidosis in Nova Scotia. A Comparative Analysis", Drs. R. L. Aikens, D. G. Douglas, A. Laretei, and J. E. Hiltz, Canadian Medical Association Journal, September, 1968
4. "Erythema Nodosum", Drs. H. M. Holden and J. E. Hiltz, Nova Scotia Medical Bulletin, October, 1968
5. "Mycobacteriosis Due to Other than M. Tuberculosis" Drs. J. E. Hiltz and G. A. Kloss, Canadian Medical Association Journal, November, 1968

It should be mentioned that the Sanatorium continued to provide special services during the year, including the following:

1. The Medical Superintendent continued to serve as Administrator of Tuberculosis Control Services for the Department of Public Health. All the records concerning this department, in addition to the provincial tuberculosis index, are maintained in our Medical Records Department and kept up to date by our staff.

2. An x-ray film developing service is provided for Health Unit Directors. During 1968, this involved the processing of 10,665 films at no charge to the Health Unit concerned. Also, 1545 survey films (14x17) were developed and interpreted for the Director of Tuberculosis Control for the City of Halifax.

3. A total of 100 electrocardiograms was interpreted for Point Edward Hospital.

4. The Nova Scotia Sanatorium continued to provide heat for the Department of Lands and Forests Building on Exhibition Street and also heat and janitor service for the Provincial Offices of the Department of Education, Public Health, and Lands and Forests in Pavilion VI.

5. Co-operation has been maintained between the Nova Scotia Sanatorium Fire Department and the Kentville Fire Department in the case of special emergencies.

6. Several groups continue to make use of Miller Hall for scientific, professional, and paramedical meetings. It is considered a distinct privilege to be able to assist in this regard.

It is with grateful appreciation that one recalls the many friends who have contributed toward the Sanatorium in various ways for the year 1968. These gifts have included donations of books to the Patients' Library, records to the Radio Station SAN, money to the Patients' Comfort Fund, and games and flowers for our bed patients. Through the co-operation of Rotarians and others, transportation was provided so that the majority of our patients could attend the Apple Blossom Festival program, a highlight of the year. The Clinical Pastoral Training students acted

as hosts for a picnic which was attended by a large group of patients. As usual at Christmas time, all the churches, the Salvation Army, the Red Cross Society, Rotary Club, the I.O.D.E., the Canadian Legion, and the Silver Cross Women of Canada remembered our patients with gifts and good wishes, together with a personal visit in many instances. Various groups contributed toward concerts and other entertainment during the course of the year, as well as carol singing during the Christmas season. For some of our patients, the Walter Callow buses provide the only form of outing during the year, and these drives are also enjoyed greatly by many of our patients who are not bed-ridden. The monthly card parties sponsored by various church groups and the I.O.D.E. continued to be popular. We do hope that all these persons have been thanked by mail or in the Health Rays magazine, but if anyone has been overlooked, do forgive us. In any event, we would like to say another "thank you" to all.

It is with hopeful anticipation that we look toward the planning of a new building to replace our older structures. As mentioned in the 1967 report, the government placed a large sum of money aside for this purpose. Perhaps during 1969 these plans will be drawn up and finalized so that our dreams can become a reality.

Our personal thanks are hereby extended to the Honourable Richard A. Donahoe, Q.C., Minister of Public Health, and to Dr. J. S. Robertson, his deputy, for continued advice and support during the year. Also, our thanks are due to the officials of the Department of Public Works for their continued efforts to maintain our buildings in good condition.

Our late Medical Superintendent was not here to write the report for his last completed year, 1968. He would wish me to pay tribute to the members of the Sanatorium staff whose loyal efforts have made possible such excellent results.

July, 1969

H. M. Holden, M.D.,
Acting Medical Superintendent

STATISTICAL REPORT
FOR THE CALENDAR YEAR ENDING DECEMBER 31, 1968

TABLE I

	Calendar Year 1966	Calendar Year 1967	Calendar Year 1968
Number of patients discharged since November 30, 1964	12,523	12,770	12,996
Number of patients in residence at first of year . . .	135	152	127
Number of patients admitted during year	263	253	237
Number of patients readmitted* during year	76	93	102
Number of patients readmitted* for review during year	9	15	22
Number of patients treated during year	483	513	488
Total number of patients discharged for first time during year	247	287	226
Number of readmitted patients discharged during year	74	84	108
Number of review patients discharged during year . . .	10	15	21
Total number of patients discharged during year . . .	331	386	355
Number of patients in residence on last day of year . .	152	127	133
Number of patient days treatment	54,800	61,445	49,902
Number of patient days treatment for nontuberculous patients (included above)	4,196	5,450	4,843

*Readmitted means previously treated at the Nova Scotia Sanatorium

**4,843 days do not include 731 days hospital care for 135 sick staff

ADMISSIONS DURING YEAR—SOURCE OF PATIENTS
(Dominion Bureau of Statistics Classification)

TABLE II

First admission to any institution	240	238	216
Readmission, previously treated at any tuberculosis institution	78	92	106
Transfer direct from another institution	20	16	17
To continue treatment (temporarily released)	1	0	0
Review only (evaluation—no treatment)	9	15	22
All admissions	348	361	361

TABLE IIIa
DIAGNOSIS OF ALL PATIENTS DISCHARGED DURING YEAR

(Review cases are excluded)

	First Admissions		Readmissions*	
Pulmonary tuberculosis—reinfection type ..	88 or	38.9%	76 or	70.4%
Pulmonary tuberculosis—primary active	20 or	8.8		
Pleural tuberculosis	2 or	0.9		
Tuberculosis of elbow	1 or	0.4	1 or	0.9
Tuberculosis of hip			1 or	0.9
Tuberculosis of kidney	3 or	1.3		
Tuberculosis of lymph nodes	2 or	0.9		
Tuberculosis of meninges	1 or	0.4		
Tuberculosis of peritoneum			1 or	0.9
Tuberculosis of spine	2 or	0.9	2 or	1.8
Pulmonary disease—nontuberculous	107 or	47.4	27 or	25.0
All discharges	226 or	100%	108 or	100%

TABLE IIIb
FINAL PRINCIPAL TUBERCULOSIS DIAGNOSIS
OF REVIEW CASES DISCHARGED DURING THE YEAR

	Active	Inactive
Tuberculosis of Lung:		
Minimal	3	4
Moderately advanced	2	2
Far advanced	2	
Other Tuberculosis	5	3
All Review Cases	12	9

*Previously treated at this institution.

TABLE IIIc
COMPLICATIONS OF PATIENTS DISCHARGED
Calendar Year 1968

(excludes all principal diagnoses shown in Tables IIIa, IIIb, and IVa)

A. Tuberculous conditions:

Abscess, arm	1
Bones & Joints, tuberculosis of	
Hip	1
Knee	1
Spine	3
*Bronchiectasis	27
*Bronchoesophageal fistula	1
*Bronchopleural fistula	8
*Empyema	11

Erythema nodosum	1
Genitourinary system, tuberculosis of	5
Laryngitis	1
Lymphadenitis	2
*Middle Lobe syndrome	2
Peritonitis	2
*Pleurisy with effusion	12
*Pneumothorax, spontaneous	2
*Tracheobronchitis	4

B. Conditions other than Tuberculosis:

*Abscess, lung	3
*Acidosis, respiratory	6
Acne, vulgaris	1
Anaemia, iron deficiency	18
Angina pectoris	1
.....CV	1
*Anthracosilicosis	6
Arteriosclerosis	18
Arthritis, osteo	4
Arthritis, rheumatoid	5
*Asthma, bronchial	1
*Atelectasis	6
.....CV	4
Atheroma of aorta	5
Auricular fibrillation	7
.....CV	3
*Bronchiectasis	1
*Bronchitis	1
*Broncholithiasis	1
*Bronchoesophageal fistula	1
*Bronchopleural fistula	1
Cardiospasm	1
Cataract	1
Cellulitis	1
Cerebral-vascular accident	2
.....CV	1
Cervicitis, chronic	2
Cholecystitis, chronic	3
Cholelithiasis	1
Conjunctivitis	8
Cor pulmonale	1
.....CV	2
Cyst, epidermoid	2
*Cyst, pulmonary	2
Cystitis, chronic	2
Cystocele	1
Degenerative disc syndrome	2
Dermatitis, generalized	28
Diabetes mellitus	2
Diverticulosis of bladder	3
Diverticulosis of colon	4
Dupuytren's contracture	3
*Empyema	22
*Emphysema, generalized of lung	

Engelmann's disease	1
Epilepsy	4
*Fibrosis of lung, cause undetermined	10
*Fibrothorax	3
Fissure-in-ano	1
Fracture of femur	1
Fracture of hip	2
Fracture of rib	1
Fracture of vertebrae	1
Fracture of wrist	1
Gangrene	1
Glomerulonephritis, chronic	1
Gynecomastia	4
*Haemoptysis	2
Haemorrhoid	3
Heart disease, congestive ..CV	4
Heart disease, coronary ..CV	32
Heart disease, rheumatic ..CV	1
Hernia, hiatus	2
Hernia, inguinal	3
Herpes zoster	1
*Hypertension, pulmonary ..CV	1
Hypertensive cardiovascular disease ..CV	18
Hypo-adrenalism	1
Infarct of rib	1
Infarction, acute myocardial ..CV	3
Kyphosis, dorsal	1
*Laceration, pulmonary	1
Laryngitis	1
Laryngotracheitis	2
Lichen planus	1
Lipoma	3
Marfan's syndrome	1
Multiple sclerosis	1
Myocarditis ..CV	2
Neoplasm, benign, skin	4
Neoplasm, malignant, primary of breast	2
*Neoplasm, malignant, primary of chest wall	1
Neoplasm, malignant, primary of colon	1
*Neoplasm, malignant, primary of lung	4
Neoplasm, malignant, primary of prostate	2
Neoplasm, malignant, primary of skin	2
Neoplasm, malignant, primary of tendon sheath	1
Nephrolithiasis	1
Obesity, constitutional	1
Osteoporosis, senile	3
Otitis media, chronic	1
Parkinson's syndrome	1
Pectus excavatum	2
Pediculosis, capita	1
Pediculosis, corporis	1

Pharyngitis, chronic granular	1
Phlebothrombosis CV	1
*Pleurisy with effusion	3
*Pneumonia, broncho	13
*Pneumonitis	11
*Pneumothorax, spontaneous	1
Prostatic hypertrophy	9
Psoriasis	2
Psychiatric conditions:	
Alcoholism	3
Anxiety state	3
Chronic Brain syndrome	3
Chronic organic psychosis	1
Depression	5
Hysteria	1
Mental Retardation	6
Mongolism	1
Organic Brain syndrome	1
Personality disorder	6
Psychosis, undetermined etiology	1
Reactive Depression	12
Schizophrenia	4
Situational Reaction	5
Pyelonephritis	3
Pyorrhea	1
Renal Insufficiency	1
*Respiratory Insufficiency, chronic	2
Sclerosis, amyotropic lateral	1
Shoulder-Hand syndrome	13
Sinusitis, nasal	1
Strabismus, convergent	1
Syphilis, latent	2
*Thrombophlebitis CV	1
Tonsillitis	1
*Tracheobronchitis	2
Ulcer, decubitis	2
Ulcer, gastric	1
Vaginitis, trichomonas	2
Varicocele	1
Varicose veins CV	8

TABLE IVa

NONTUBERCULOUS PATIENTS—DIAGNOSIS ON DISCHARGE

(includes sick staff admitted to other than sick
staff rooms for care of minor illnesses)

	First Admissions	Readmissions*
Abscess, lung	3	
Appendicitis, acute	1	
Appendicitis, chronic	1	
Asthma, bronchial	6	1
Ascariasis	1	
Bronchiectasis, nontuberculous	8	4
Bronchitis, chronic	2	2
Cat Scratch Fever	2	
Cerebral-vascular accident	1	
Cystic Disease of lung	2	6
Eventration of Diaphragm	2	
Farmer's Lung	2	2
Fibrosis, pulmonary, undetermined etiology	4	2
Fibrothorax		1
Fracture of ribs	3	
Haemoptysis, cause undetermined	2	
Hamman-Rich syndrome	1	
Hypertension, essential	1	
Infarct, pulmonary	1	
Mastitis, chronic	1	
Mycobacteriosis, Runyon Group III bacilli	1	
Neoplasm, benign, bronchus	1	
Neoplasm, benign, mediastinum	1	
Neoplasm, benign, uterus	1	
Neoplasm, malignant, primary lung	15	1
Neoplasm, malignant, primary mediastinum		1
Obstruction of oesophagus	1	
Periarteritis nodosa	1	
Pleurisy with effusion	4	
Pluerodynia	1	
Pneumonia, broncho	8	
Pneumonia, lobar		1
Pneumonitis		1
Pneumonoconiosis	1	
Pulmonary infiltration, cause undetermined	1	
Pyelonephritis		1
Sarcoidosis, pulmonary	5	2
Spontaneous pneumothorax	2	1
Tuberculin converter, no demonstrable disease	1	
No evidence of significant disease	9	1
No diagnosis	1	
Total	107	27

TABLE IVb
NONTUBERCULOUS PATIENTS DISCHARGED—Year 1968

Age Group and Sex

	First Admissions			Readmissions*
	Male	Female	Both Sexes	Total
0-9	2	4	6	0
10-19	2	2	4	1
20-29	3	10	13	3
30-39	8	4	12	3
40-49	10	5	15	3
50-59	11	6	17	11
60-69	18	8	26	2
70-79	7	4	11	3
80+	3		3	1
All ages	64	43	107	27

TABLE IVc
NONTUBERCULOUS PATIENTS DISCHARGED

Condition on Discharge

	First Admissions			Readmissions*
	Male	Female	Both Sexes	Total
Resolved	11	7	18	2
Improved	19	10	29	9
Unchanged**	25	26	51	12
Dead	9		9	4
Total	64	43	107	27

* previously treated at this institution

** includes 'unimproved'

TABLE IVd
NONTUBERCULOUS PATIENTS DISCHARGED—Year 1968

Health Unit referring case

Health Unit	First Admissions	Readmissions*
Atlantic	7	1
Cape Breton North	1	
Cape Breton South	2	1
Cobequid	6	
Fundy	54	21
Halifax City	3	
Lunen-Queens	10	
Northumberland	14	2
Western	10	2
ALL UNITS	107	27

TABLE V
DISCHARGE CONDITIONS OF PATIENTS WITH TUBERCULOSIS—
ALL FORMS

(Review cases excluded)

Calendar Year 1968

	First Admissions	Readmissions*
Inactive	10 or 8.4	29 or 35.8
Quiescent	2 or 1.7	1 or 1.2
Active Improved	95 or 79.8	38 or 47.0
Active Unimproved	2 or 1.7	4 or 4.9
Dead	10 or 8.4	9 or 11.1
ALL DISCHARGES	119 or 100%	81 or 100%

*Previously treated at this institution

TABLE VI

IRREGULAR DISCHARGES

AMERICAN THORACIC SOCIETY FORMULA

Total number of patients discharged Jan. 1 to Dec. 31, 1968	355	
Total deductions	185	
a) Deaths	32	
b) Nontb. discharges	121	
c) Transfers to other hospitals for continuation of Tb. treatment	11	
d) Discharges of patients admitted for observation, diagnostic procedures, special examinations, or follow-up and for whom less than 30 days' hospitalization was anticipated by original intent	21	
e) Discharges of court order patients from locked wards	0	
Net Tb. discharges		170
Total irregular discharges		10
a) against medical advice (disease unstable: 1)	10	
b) disciplinary	0	
Percent irregular discharges 1968 (item $4 \div 3 \times 100$)		5.9%
Per cent irregular discharges 1967	11.2	
Per cent irregular discharges 1966	24.2	
Per cent irregular discharges 1965	21.1	
Per cent irregular discharges 1964	15.5	
Per cent irregular discharges 1963	13.1	
Per cent irregular discharges 1962	19.7	
Per cent irregular discharges 1961	21.8	
Per cent irregular discharges 1960	19.2	
Per cent irregular discharges 1959	39.5	

TABLE VII
ADMISSION DIAGNOSIS OF PATIENTS DISCHARGED
(Pulmonary Tuberculosis only)
Review cases excluded

	First Admissions						Readmissions*	
	Calendar Year 1968			Fiscal Years ending in			Calendar Year 1968	
	Males	Females	Total	1958 Total	1948 Total	1938 Total		
Primary	11 or 16.2%	9 or 22.5%	20 or 18.5%	43 or 18.4%	23 or 13.5%	35 or 16.0%	16 or 21.0%	
Minimal	16 or 23.5	11 or 27.5	27 or 25.0	131 or 56.4	92 or 53.2	70 or 32.0	29 or 38.2	
Moderately advanced	21 or 30.9	10 or 25.0	31 or 28.7	59 or 25.2	58 or 33.5	114 or 52.0	31 or 40.8	
Far advanced	20 or 29.4	10 or 25.0	30 or 27.8	223 or 100%	173 or 100%	219 or 100%	76 or 100%	
All Diagnoses	68 or 100%	40 or 100%	108 or 100%					

* Previously treated at this institution

Table VIII b
AGE GROUPS AND PRINCIPAL TUBERCULOSIS DIAGNOSIS
OF PATIENTS IN RESIDENCE

Age Group	December 31, 1968					Dec. 31 1967 Total
	Primary	Minimal	Mod. Advanced	Far Advanced	Other Tuberculosis	Total
0-4	2				1	2
5-9	10					11
10-14	5					5
15-19		1	1	5	1	2
20-29	1	3	1			11
30-39		1	4	5		10
40-49		1	4	8		7
50-59		4	5		2	9
60-69		2	6	15	1	22
70-79		2	2	10	2	14
80+			1	3		22
						16
						2
All ages	18	14	24	54	7	117

Table IX

RELIGION OF PATIENTS DISCHARGED

Tuberculosis—All Forms
(Review cases excluded)

Calendar Year 1968

	First Admissions and Readmissions*
Advent Christian	2 or 1.0%
Anglican	20 or 10.0
Baptist	43 or 21.5
Catholic, Roman	72 or 36.0
Christian Reformed	1 or 0.5
Hindu	3 or 1.5
Jehovah Witness	1 or 0.5
King Fu Tse	1 or 0.5
Lutheran	1 or 0.5
Methodist	2 or 1.0
Mormon ..	1 or 0.5
Presbyterian	11 or 5.5
Salvation Army	3 or 1.5
Sikh	1 or 0.5
United Church	38 or 19.0
All Discharges	200 or 100%

* Previously treated at this institution

Table X

RESIDENCE OF PATIENTS DISCHARGED

Tuberculosis--All Forms
(Review cases excluded)

Calendar Year 1968

	First Admissions			Readmissions*		
	Male	Female	Total	Male	Female	Total
Annapolis County	3		3	3	3	6
Antigonish County ...	1	1	2	1	1	2
Cape Breton County ..	6	3	9	2		2
Colchester County	3	3	6	1	1	2
Cumberland County ..	4	2	6	8	1	9
Digby County	10	8	18	2		2
Guysborough County .	2	1	3	2		2
Halifax City	7	5	12	4		4
Halifax County	12	11	23	4	3	7
Hants County	1	3	4	2	2	4
Inverness County			0			0
Kings County	3	2	5	11	6	17
Lunenburg County ...	4		4	5		5
Pictou County	10	3	13	7	1	8
Queens County	1		1		1	1
Richmond County			0			0
Shelburne County	2	2	4	2	1	3
Victoria County	1		1	1		1
Yarmouth County	2	1	3	4	2	6
Out of Province	2		2			0
Total	74	45	119	59	22	81

* Previously treated at this institution

Table XI

SURGICAL PROCEDURES

Calendar Year 1968

A. Artificial pneumoperitoneum	0
B. Primary Thoracoplasty	0
C. Pulmonary Resection	48

Indications: (including biopsy* for diagnostic purposes)

Abscess, lung	1
Adenoma, bronchial, carcinoid	1
Bronchiectasis	4
Carcinoma, bronchogenic	2
Emphysema	1
Farmer's Lung	2*
Mycobacteriosis	1
Pneumonitis	1*
Siderosis	1*
Tuberculosis	34

For Pulmonary Tuberculosis: Type of operation

Pneumonectomy	1
Lobectomy	11
Segmentectomy, multiple	7
Segmentectomy, plus wedge resection	2
Segmentectomy	4
Wedge resection	9

Operative Mortality (within 60 days) 0.0%**

** Based on tuberculosis cases only

Table XI D

RESECTIONAL THERAPY ON PATIENTS DISCHARGED
Pulmonary Tuberculosis only—according to extent of disease
FIRST ADMISSIONS

Extent of Disease	Calendar Year 1968			1967	1966	1965	1964
	Male	Female	Total				
Minimal	1 or 6%	2 or 18%	3 or 11%	8 or 27%	8 or 27%	9 or 27%	9 or 30%
Moderately advanced . .	8 or 39	2 or 20	10 or 32	12 or 26	15 or 30	24 or 49	27 or 57
Far advanced	4 or 20	4 or 40	8 or 27	10 or 27	14 or 38	9 or 29	15 or 47
Total	13 or 23%	8 or 26%	21 or 24%	30 or 27%	37 or 32%	42 or 37%	51 or 46%
Bilateral operations . .	1	1	2	1	1	2	2

READMISSIONS*

Extent of Disease	Calendar Year 1968			1967	1966		1965		1964	
	Male	Female	Total		Total	Total	Total	Total	Total	
Minimal		1 or 25%	1 or 6%	1 or 14%	3 or 20%	2 or 13%	3 or 16%			
Moderately advanced .	2 or 10%	2 or 7%	2 or 7%	4 or 23	5 or 22	4 or 13	4 or 18			
Far advanced	2 or 9	1 or 12	3 or 10	4 or 29	0 or 0	2 or 13	4 or 13			
Total	4 or 7%	2 or 10%	6 or 8%	9 or 24%	8 or 15%	8 or 12%	11 or 15%			
Bilateral operations ..	0	0	0	1	0	0	1			

* Previously treated at this institution

Table XI

E. Sundry Surgical Procedures—Major:

Appendicectomy	1
Cholecystectomy	1
Extrapariosteal plombage lung	2
Herniorrhaphy	2
Hysterectomy	2
Ileocolostomy	1
Nephroureterectomy	1
Pleurectomy	2
Prostatectomy, retropubic	2
Removal of plombage and thoracoplasty	6
Resection of tumour from plastron, post-thoracoplasty	1
Schede, modified	2
Thoracotomy and removal of mediastinal lipoma	1
Thoracotomy and repair of diaphragm	1
Transurethral resection of prostate	4

F. Sundry Surgical Procedures—Minor:

Application of Plaster Cast	7
Aspiration of abdominal fluid	1
Aspiration of pleural fluid	65
Aspiration of joint	5
Biopsy, breast	2
Biopsy, growth	13
Biopsy, larynx	1
Biopsy, muscle	2
Biopsy, pleural tissue	12
Biopsy, scalene node	11
Biopsy, skin (Kveim test)	7
Blood Transfusion—bottles of blood used	198
Cauterization of Wart	5
Excision of cervical lymph nodes	4
Excision of cyst	5
Excision of keratosis	2
Excision of mole	3
Excision of nevus	5
Excision of papilloma	1
Excision of wart	1
Fulguration of bladder	1
Incision and drainage of abscess	5
Mastectomy (male)	2
Nerve Block	2
Probing incision	5
Removal of Plaster Cast	6
Thoracostomy	9
Unguetomy	4

TABLE XI

G. Anaesthesia

Novocaine 2%	187
Pentothal Sodium	7
Pentothal Sodium + Novocaine	1
Pentothal Sodium + ether + oxygen	31
Pentothal Sodium + ether + cyclopropane + oxygen	50
Pontocaine 2% topical	321
Pontocaine + Novocaine	5
Spinal	7
Xylocaine 4%	3

TABLE XII

X-RAY DEPARTMENT REPORT

Abdominal, flat film	12
Barium enema	12
Bones & Joints	247
Bronchograms	90
Bronchospirrometry	1
Chest	4902
Cystogram	1
Dental	35
Fistula, contrast media	7
Gall Bladder	3
Gastrointestinal	30
Kidney-Ureter-Bladder	21
Outside films interpreted	2492
-interpreted for Director of Tuberculosis Control, City of Halifax	1545
-interpreted for others	947
Planigrams	112
Sinus and Mastoid	20

Total 7985

3168 Outpatient X-ray examinations included in above table.

Film developing service for Department of Public Health:

Cobequid Health Unit	4933
Fundy Health Unit	1913
Northumberland Health Unit	2065
Western Health Unit	1754
All Units	10,665

TABLE XIII

LABORATORY REPORT

Units of work performed:	1968	1967	1966
General Laboratory	94,953	94,359	80,366
Milk and Water Laboratory	13,527	11,661	12,207
Total Units performed in Nova Scotia Sanatorium Laboratory	108,480	106,020	92,573
Units of Work performed for the Sanatorium by Public Health, Red Cross and Biochemistry Laboratories, Halifax	14,667	17,121	11,764
Units of Work performed for the Sanatorium by: Pathology Laboratory, Halifax	1,432*	1,616	1,240
Blanchard-Fraser Memorial Hospital Laboratory, Kentville	80	158	162
Total Units of Work for Sanatorium specimens	124,659	124,915	104,499

*Surgical and autopsy specimens rated at 8 units of work for each 169 operative specimens plus 10 complete autopsies.

Bacteriology:

Atypical mycobacteria for identification	9
Atypical mycobacteria sub-culture	181
Bronchoscopic specimens for tubercle bacilli: Concentrated cultures	275
Cerebrospinal fluid specimens for tubercle bacilli: Direct cultures	42
Direct smears	12
Gastric lavages for tubercle bacilli: Concentrated cultures	1107
Concentrated smears	270
Miscellaneous specimens for tubercle bacilli: Concentrated cultures	317
Concentrated smears	129
Direct cultures	250
Direct smears	114
Niacin testing	197
Sputum specimens for tubercle bacilli: Concentrated cultures	3645
Concentrated smears	1450
Tubercle Bacilli sensitivities	201

Urines for tubercle bacilli:	
Concentrated cultures	1079
Concentrated smears	479

Secondary Organisms:	
Blood cultures	7
Cerebrospinal fluid culture	
General antibiotic sensitivity tests	264
Miscellaneous cultures	594
Miscellaneous smears	5
Sputum	499
Sterilities	83
Stool	3
Surface area surveys (Operating Room)	51
Throat and Nose	2275
Urine	189
Fungi cultures	15

Biochemistry:

Bromsulphalein	150
Cephalin Cholesterol Flocculation	7
Collections	1406
Creatinine, blood	31
Glucose	1490
Glucose tolerance	13
Ictotest, serum	16
Non Protein Nitrogen	43
Thymol Turbidity	18
Total Protein, A/G Ratio	67
Urea Nitrogen	583
Van den Bergh	6
Cytology collections	407

Cerebrospinal Fluid:

Cell count	10
Chlorides	8
Protein	9
Sugar	8

Faeces:

Occult blood	110
Ova and Parasites concentrated	19
Urobilin	1

Haematology:

Bleeding Time	1
Clotting Time	1

Collections	785
Differential counts	1995
Eosinophil counts	5
Hematocrits	1951
Hemoglobin estimations	2415
L. E. Cells	10
Mono Test	34
Nasal swabs for eosinophils	12
Partial Thromboplastin Time	4
Platelet counts	15
Prothrombins	5
Red Blood Cell Count	2
Reticulocyte count	16
Sedimentation Rates	1951
White Blood Cell Count	2708

Milk and Water Examinations:

Samples tested for coliform organisms:

Chocolate Dairy Drink	117
Cream	112
Ice Cream	22
Ice Cream Mix	46
Milks	527
Rinsings	11
Total dairy products	835
Water	1637

Samples tested for phosphatase:

Chocolate Dairy Drink	117
Cream	112
Ice Cream	22
Ice Cream Mix	46
Milks	404
Total Phosphatase tests	701

Other tests:

Plate counts, milk	116
restaurants and taverns	604
Resazurins	80

Pleural Fluid:

Specific Gravity	4
Smear for cells (differential)	5
Sugar	6
Total Protein	1

Serology:

Collections	310
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Urines:

Individual constituents	164
Routine urinalysis	2096
Trichomonas smears	48

Tests Performed in the Biochemistry Department, V. G. Hospital:

Blood and urine specimens:

Amylase	1
Acid Phosphatase	2
Alkaline Phosphatase	61
Bicarbonate	35
Calcium	36
Chlorides	46
Cholesterol	75
Electrophoresis, protein differential	8
17 Keto-Steroids	8
17 OH-corticoids	7
Other urinary hormones	1
Phosphorus	8
Potassium	49
Protein bound iodine	22
Sodium	48
Transaminase	55
Uric Acid	38
Urine for pregnancy	6
Urine sodium	4

Cerebrospinal Fluid:

Chlorides	—
Mastic curve	5

Tests Performed in the Public Health Laboratory, Halifax:

Bacteriology:

Culture for identification	2
Fungi culture	10
General Sensitivity	—
Gonococcus smears	113
Stools for enteric	11
Widal	2
Bentonite Titre for National Reference Laboratory	2

Haematology:

Bone marrow	5
Iron and Iron Binding Capacity	5
L. E. Cells	10

Pathology:

Papanicolaou Smears	808
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Serology:

Latex Fixation	4
Paul Bunnell	38
V.D.R.L.	603
Wassermann, blood	11
Wassermann, C.S.F.	3
Treponema Pallidum Immobilization	1
FTA-ABS	6

Tests Performed in the Red Cross Laboratory:

Blood Group, Cross Match, Rh, for surgery	364
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Tests Performed in the Blanchard-Fraser Memorial Hospital Laboratory:

Cross Match for surgery	21
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Special Study:

Tests for Aspergillosis survey, Halifax	34
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Note:

We continue to acknowledge our indebtedness to the Laboratory Services of the Department of Public Health, and the Biochemistry Service of the Victoria General Hospital, and to the Red Cross Blood Transfusion Service, for invaluable assistance rendered throughout the year.

TABLE XIV

SPECIAL SERVICES

A. Outpatient Department:	1968	1967
(1) Total visits to chest clinic	3386	3389
In-patients	767	
Staff	1317	
Others	1302	
(2) Number of old cases reactivated	4	3
(3) Number of newly diagnosed cases	0	0

(4) B.C.G. Clinic:

Total vaccinations	62	77
Nurses—graduate	0	
—student	0	
—other	38	
Other hospital personnel	17	
Adults and children—contacts	0	
Adults and children—not contacts	7	

B. Bronchoscopy Service:

Bronchoscopic examinations	210	260
--------------------------------------	-----	-----

C. Physical Medicine Service:

Treatments:

Exercise—active and passive	6760	6536
Massage	362	290
Infra Red light therapy	2861	1980
Short Wave therapy	892	1417
Steam packs	1121	913
Wax baths	875	803
Ultra sonic muscle stimulation	804	1031
Intermittent Positive Pressure Breathing	3647	3733
Postural Drainage*	795	1248

*Postural Drainage includes 607 with IPPB to facilitate the procedure

D. Miscellaneous Diagnostic Procedures:

Audiometry	73	—
Blood Gas studies	181	54
Bronchspirometry	3	6
Electrocardiograms	356	271
Pulmonary Function tests	107	71

E. Mental Health Services:

Patients Visits

Service by Psychiatrist:

Brain Disorders	9	18
Mental Deficiency	6	6
Psychotic Disorders	8	12
Psychophysilogic Disorders	1	1
Psychoneurotic Disorders	17	29
Personality Disorders	4	5
Situational Adjustment Reactions	7	9
No diagnosis	1	2
Total	53	82

Psychiatric Lecture Series to Nurses-in-Training 12

F. Dental Services:

Examinations	128
Prophylactic treatments	35
Extractions	209
Fillings	256
Dentures (professional service only)	11

G. Special Examinations:

Allergy tests	13
Autopsy examinations	10
Autopsy rate 31%	
Cystoscopy	7
Electrocardiograms interpreted for Point Edward Hospital	100
Electroconvulsive therapy	2
Esophagoscopy	2
Injection of joint	11
Injection of pleural space	2
Lumbar puncture	11
Pelvic examinations	72
Piercing of ears	10
Sigmoidoscopy	5
Sternal puncture	12

TABLE XV

SPONSORSHIP OF PATIENTS HOSPITALIZED

	1966	1967	1968
Department of National Defence—Army	1	0	0
—Navy	5	6	3
—Air Force	1	0	0
Department of National Health & Welfare, Medical Services:			
a) Immigration Medical Service	0	0	0
b) Indian and Northern Health Services	10	8	6
c) Sick Mariners Service	2	4	1
Department of Veterans Affairs:	11	14	7
Reciprocal Agreement:			
a) with Ontario	0	0	1
b) with New Brunswick	0	0	0
c) with Prince Edward Island	0	0	0
Other:			
a) Private shipping company	1	1	0
b) U. S. citizen	1	0	1
Department of Public Health of Nova Scotia	451	480	470
Total	483	513	488

Twentieth Annual Report

OF

Point Edward Hospital

NOVA SCOTIA

DEPARTMENT OF PUBLIC HEALTH

SYDNEY, NOVA SCOTIA

FOR THE CALENDAR YEAR
ENDING DECEMBER 31, 1968

Medical Superintendent	Dr. D. S. Robb
Chief Clerk	Mrs. Margaret MacKenzie
Stores Supervisor	Mrs. Isobel MacPherson

Rehabilitation Supervisor	Mr. James MacDougall (resigned Oct. 31/68)
	Miss Helen MacKenzie (after Nov. 1/68)
X-Ray Technician	Mrs. Ada O'Callaghan
Laboratory Technician	Miss Margaret Lamond
Dietitian	Miss B. Joyce Lewis
Housekeeper	Mrs. Maude Sutton
Medical Records	Miss Vivian Fraser
Maintenance Foreman	Mr. Hubert Lewis

**THE TWENTIETH ANNUAL REPORT
—POINT EDWARD HOSPITAL—
—1968—**

IN MEMORIAM—Dr. J. E. Hiltz

This twentieth annual report of Point Edward Hospital covers the activities and statistics of the calendar year 1968, and yet it seems improper to commence this report without first pausing comment on the sudden passing, on March 22, 1969, of Doctor J. E. Hiltz, Administrator of Tuberculosis Control Services for the N. S. Department of Public Health, and Medical Superintendent of the Nova Scotia Sanatorium. It is an understatement to say that he is being, and will be, missed, and perhaps it serves no useful purpose to repeat here tributes which have already been recorded elsewhere. In time our sense of grief will be dulled; others will continue his battle to control tuberculosis, and eventually to eradicate it from our midst. Without his guiding hand the battle may take longer, but it will nevertheless be won.

THE FUNCTION OF PT EDWARD HOSPITAL

What is the function of Point Edward Hospital in this battle? The hospital is operated by the Nova Scotia Department of Public Health as a hospital for the diagnosis and treatment of persons suffering from tuberculous disease, for the protection of the public by the isolation of such persons during the infectious stage of their disease, and for the provision of in-patient and out-patient diagnostic services for the evaluation of cases of known or suspected tuberculosis, or of other diseases simulating tuberculosis, and also of other cases of pulmonary disease.

FACILITIES

The hospital is located just across the harbour from Sydney, seven miles by road, beside the former Point Edward Naval Base, which is now known as Point Edward Industrial Park. The hospital was constructed for the Navy during World War II, and was leased to the Province when no longer required as a hospital by the Department of National Defence or by the Department of Veterans' Affairs. It was opened as a Tuberculosis Hospital on January 14, 1949, at a time when the demand for active treatment beds for

tuberculosis was at an all-time-high level, two and a half years after the introduction in Nova Scotia of "free treatment for Tb." Initially the hospital was over-crowded with 184 beds, and there were waiting lists for admission. Capacity is now rated at 152 beds, although the number of beds actually set-up is somewhat lower, and the average daily census for 1968 was 59 patients.

In addition to the hospital building, the plant includes a Nurses' Residence, a Domestic Staff Residence, Apartments for the Medical Staff (two of the four apartments are now rented to the Coast Guard College of the Department of Transport, from whom we lease the entire hospital property). All buildings are of "temporary" war-time construction, and certainly are below current standards of general hospital construction in the province. Maintenance of an old building is a continuing problem, and we are indebted to the N. S. Department of Public Works for their unfailing cooperation in this regard, as well as to our own maintenance and housekeeping staff for work well done.

TUBERCULOSIS TRENDS

During 1968 there was a small increase in the number of patients admitted to hospital, 193 as compared to 173 in the previous calendar year. This reflects the fact that during 1968 there was an increase in the number of new active cases of tuberculosis discovered in the Province—a fact which should give pause to those complacent souls who wish to consider the struggle against tuberculosis as already won, rather than as a continuing battle in a war which will not be won in our lifetime. Note that the greater number of tuberculous admissions were for moderately advanced or far advanced pulmonary disease, and that the majority of these were already fifty years of age or more. Statistical tables are appended. Note that in spite of an increase in admissions, there was a decrease in the average length of stay, with a resultant drop in the total number of patient-days and a decrease in the average daily census. More of our patients are receiving more of their treatment at home.

MEDICAL TREATMENT

There has been little change in the basic methods of treatment for tuberculosis during the year. The main reliance continues

to be placed on anti-tuberculosis medication, with bed rest playing a diminishing but still necessary role during the active phase of the disease. Streptomycin, Isoniazid, and PAS remain the "first line drugs", with Cycloserine, Ethionamide, Pyrazinamide, Viomycin, Kanamycin, and Isoxyl playing a lesser part, as "Second Line" drugs. Unfortunately, even with this armamentarium problems still arise—drugs may have to be abandoned because of toxic side reactions or because of the development of allergy or the emergence of strains of bacilli resistant to the medication. Best results are achieved when the disease is diagnosed early and treatment is started before serious permanent damage to lung tissue has occurred. Drugs chosen must be effective for the particular organisms involved; they must be given in the proper dosage and in the proper combination, without interruption, for a sufficiently long period of time (usually two years, sometimes longer). Most patients can be discharged when their sputum is no longer infectious, when their disease has been brought under control and is healing well—but it must be remembered that the process of healing is a long slow one, and that medication must be continued for long periods. It is unfortunately true that many patients on home therapy fail to continue medication as prescribed, with the result that the disease does not heal as well as it should, and that thus the hazard of reactivation in later years is increased.

SURGICAL TREATMENT

At Point Edward Hospital we are now doing very little major surgery. During the year 16 patients were transferred to the N.S. Sanatorium, chiefly for surgical removal of areas of residual fibrocaseous disease which has not fully healed with medical treatment. Patients requiring other major surgical procedures were (provided that their Tb had become non-infectious) transferred to one of the local general hospitals, while those with diagnosed malignancy were referred to the N.S. Tumour Clinic for admission to the Victoria General Hospital.

Procedures in our own operating room were largely diagnostic—cystoscopic or bronchoscopic procedures by our consultant staff, scalene node biopsies, etc., by our own medical staff.

DIAGNOSTIC PROBLEMS

Thirty seven of our 193 admissions were for conditions which proved to be non-tuberculous. A listing of these may be

found in Table 3 in this report. In addition, these patients with proven tuberculosis presented a wide range of associated conditions, which also required identification and treatment—for unfortunately Tuberculosis offers no protection against the development of other pathology. It is this kaleidoscope which prevents the specialty of "Tuberculosis and Diseases of the Chest" from becoming too narrow or restrictive a field, which has kept our medical staff on their mettle and which has added zest to medical practice in a chest hospital.

OUTPATIENT CHEST CLINIC

Point Edward Hospital continues to operate an Out-Patient Chest Clinic twice weekly, on Mondays and Fridays, to supplement the clinics operated by the Health Unit Directors and the Chest X-rays taken by the General Hospitals. We have the disadvantage of being outside the main population center, with rather poor bus connections for those who do not have their own cars, but we have the advantage of being able to offer the patient a clinical as well as radiographic assessment, and to give him an immediate preliminary verbal report in addition to the subsequent detailed written report forwarded to the family physician, the Health Unit Director, and the Administrator of Tuberculosis Control Services.

During the year some 215 patients paid 341 visits to our Chest Clinic, and received 364 chest x-rays. A few were patients requiring planigraphic or other special studies, but most were former patients returning for routine periodic review. We normally recommend that our patients have chest x-rays every three months while on treatment, every six months for five years following the completion of treatment, and thereafter at least once yearly for life. The importance of this cannot be exaggerated, for Tuberculosis, once present, is considered to be a life-time disease which may reactivate at any time, even after having been "inactive" or "apparently cured" for many many years. It is still distressing to us—and how much more so for the patient!—to have a known "Ex-Tb—er" readmitted with far advanced disease and a strongly positive sputum, to discover that he hasn't had a check-up for years, and that his reactivation that should have responded quickly to therapy had it been discovered early has reached the stage where it is virtually incurable and that our friend has become a

chronic invalid. Such cases, fortunately, are rare; unfortunately they are not rare enough.

AFFILIATE NURSING STUDENTS

Point Edward has continued to offer student nurses from the regional schools of nursing a Four-Week Course in Tuberculosis and diseases of the Chest. During the year nine such courses were presented, with a total of 98 students enrolled, from 5 Nursing Schools:

St. Martha Hospital in Antigonish	-20 students
St. Elizabeth Hospital, North Sydney	-18 students
Sydney City Hospital, Sydney	-33 students
Glace Bay General Hospital, Glace Bay	-11 students
St. Joseph Hospital, Glace Bay	-16 students

We believe that the course has been valuable, to familiarize student nurses with a disease which remains endemic in our community, but which is all too often either not recognized or not properly treated when it shows up in our general hospitals. In knowledge is strength, and these student nurses will be part of the health team which must deal with this problem in the years to come.

REHABILITATION

In spite of the improvement in Tb treatment in recent years, and the consequent improved prognosis, so that more patients are able to return to their normal occupations on the completion of treatment (or while still taking chemotherapy at home), the Rehabilitation Department has continued to be busy, with three chief functions:

(a) Encouraging the patient to make his time in hospital constructive, not only medically but also mentally and emotionally, by making plans for the future, by study or reading, by engaging in handicrafts (leather work, hooking rugs, sewing, knitting, weaving, woodwork or plastic foam work, model construction, and so forth). In addition, with the cooperation of local service organizations, occasional entertainments, card parties, etc., break the monotony of hospital life.

(b) Helping the patient lay plans for the future, perhaps to

engage in studies while still in hospital, and to arrange (with the help of the Coordinator of Rehabilitation Services for the Department of Public Welfare, and the Canada Manpower Department) for post-discharge Trades Training.

(c) Providing "Social Service" support, helping the patient get in touch with those agencies which can best assist him and his family through difficult times.

At the end of October our Rehabilitation Supervisor, Mr. James MacDougall, was transferred to a position with the Department of Public Welfare in Sydney. His position was taken by Miss Helen MacKenzie, whose facility with handicrafts and whose ability to inspire enthusiasm in her patients, has been making the department "hum".

MEDICAL STAFF

The medical staff is now reduced to two full-time physicians, supported by salaried part time consultants in Bronchoscopy and Urology, with a number of other physicians serving as "courtesy consultants". We are looking forward to the introduction of "Medicare, when we will have less hesitation (or at least less embarrassment) in requesting consultations from any specialist in the area, knowing that MSI will pay for such on a 'fee-for-service basis'".

OTHER STAFF

Point Edward Hospital has been blessed with a very stable staff, with a very low "turn-over rate" in recent years, not only in the administrative and supervisory levels, but throughout the institution. To the many loyal and dedicated and capable individuals comprising this staff, at all levels, is due the credit for the high standards of patient care for which the hospital is known.

THE FUTURE

In spite of the fact that there was an increase in the number of patients admitted to hospital during the past year, there was a decline in the average daily census, and it must be recognized that this decline in the demand for Tuberculosis Treatment Beds is but

part of a continent-wide trend which has been persistent over recent years, and which can be expected to continue.

It should be stressed that this decline in the demand for patient beds has not been accompanied by any commensurate decline in the incidence of Tuberculosis, but reflects rather the shorter duration of hospital treatment and the greater emphasis on home chemotherapy, and to some extent the increasing trend to treat active tuberculosis in the community general hospital. Tuberculosis is still with us, and unless our present complacency is shattered and our efforts at control greatly augmented, it will be generations before we are successful in achieving the stated goal of eradication of tuberculosis.

Accepting these facts, it becomes obvious that merely to continue the process of reducing the number of active treatment beds, or of closing Tb hospitals, will not speed the goal of eradication. Rather, we must strengthen and reinforce those services which are of proven value:

(a) Tuberculin Clinics

We must augment the program of tuberculin testing the population, for the individual's tuberculin status will become of increasing significance as the incidence of positive reactors declines and the hazard of tuberculosis epidemics increases.

(b) Chest Clinics

The necessity for chest clinics remains. Known "Ex-Tb-ers" must be sought out and rechecked regularly; those with a positive tuberculin reaction should be followed with yearly chest x-rays; family contacts and others exposed to infection must be sought out, checked, and rechecked. Tuberculosis is more successfully treated when diagnosed early, so that every effort must be made to spot cases in their early, asymptomatic stages. Similar attention must be given to the "high risk" groups—the aged, the alcoholic, the diabetic, the general hospital admission, those under corticosteroid therapy, and the like.

(c) Chest Hospital

Whether in a general or a specialized hospital, facilities must be available for the diagnosis and treatment of chest problem cases. It is desirable that such a center be associated with a large general hospital complex, so that its staff would not practice in isolation, but would participate more easily in the give-and-take of medical consultation, both formal and informal. Certainly, if Cape Breton gets its proposed large "Diagnostic and Treatment Center" such a Chest Service would be a logical component, and this is true whether such a center starts "de novo" (as its dreamers envisioned) or develops from the evolution of existing hospitals (which would seem more probable). When this comes about, the services now available at Point Edward should logically be transferred and incorporated into the new unit (with, of course, the more chronic and more difficult tuberculosis cases being transferred to the N.S. Sanatorium). But until that time, or at least until some other hospital in the Sydney area provides commensurate or superior services, the services of Point Edward should not be disbanded.

(d) Tb Medical Treatment

It is highly desirable that patients requiring anti-Tb chemotherapy be hospitalized, at least until their disease has become non-infectious, until they have become stabilized on an effective regimen of drug therapy, and until they have come to learn something about the nature of their disease and to understand the necessity for long-term treatment and life-time surveillance. Patients accept such hospitalization if it is reasonably close to home, where families and friends can visit and where they do not "lose touch". It is desirable that Cape Breton retain such a facility, for many patients would resist the prospect of transfer almost 300 miles to the N.S. Sanatorium, and our local general hospitals are as yet too overcrowded to accept such patients for the several months of initial therapy desirable before home chemotherapy can safely be commenced.

(e) Supervision of Home Therapy

Many studies have shown that a large percentage of patients started on "home chemotherapy" fail to complete their prescribed course of medication, and that this failure increases the hazard of

reactivation of disease and the development of strains of tubercle bacilli resistant to treatment. The better the supervision of the patient on home therapy, the better are the results of treatment. Professional supervision is difficult in sparsely settled countries such as ours, somewhat easier in densely populated areas. Some of the more successful studies have used "lay volunteers", perhaps one to every four or five patients, to make certain that the patient sticks to his drug regimen. Perhaps, if we continue to reduce the "in-hospital" phase, it would be well to increase the amount of home supervision for these patients. If the task is too great to assign to our already over-worked Public Health Nurses, perhaps consideration should be given to enlisting the support of responsible "lay volunteers" to help with this task.

The future can be one in which Tuberculosis is virtually eradicated from our land, but only if we shake off our complacency and renew our efforts to subdue the foe.

THANKS

Each year, in this spot in the annual report, we pause to express our thanks to friends in the community, to those who, individually or as members of service clubs or church organizations, to the business firms who have served us, to the members of our hospital staff who have carried on their daily duties with a smile, to all who in so many ways have made possible such success as we have achieved. It is difficult to find new words to rephrase the thanks due to these our friends for their continued support. It is impossible even to list them all, and to mention some and omit others would be an injustice. So to all, a collective "Many Thanks" and "May God Bless".

And of course, included in the above should be members of the Department of Public Health, and other Government Departments, without whom we could not have operated; and particularly to the late Doctor J. E. Hiltz, Administrator of Tb Control Services, to Doctor J. S. Robertson, Deputy Minister, and to the Honourable Minister of Public Health, I would express my appreciation for their unfailing interest and support throughout the year.

—D. S. Robb, M.D.
Medical Superintendent

POINT EDWARD HOSPITAL

ANNUAL REPORT

For the Calendar Year ending December 31, 1968

TABLE 1
STATISTICAL REPORT OF ADMISSIONS AND DISCHARGES

	Male	Female	Total
Patients in hospital at beginning of year	43	9	52
Total Admissions during the year	146	47	193
Total Under Care during the year	189	56	245
Total Discharges during the year	146	35	181
Patients in hospital at end of the year	43	21	64
Total Patient Days	16,367	5,348	21,715
Average Daily Census	44	15	59
Patient-Days of patients discharged or dead			20,331
Average Length of Hospital Stay			112

STATISTICAL REPORT—COMPARISON WITH 5 RECENT YEARS

	1963	1964	1965	1966	1967
Patients in hospital at beginning of year	110	76	88	74	70
Total Admissions during the year ...	198	191	217	188	173
Total Under Care during the year ...	308	267	305	262	243
Total Discharges during the year	232	179	231	192	191
Patients in Hospital at end of the year	76	88	74	70	52
Total Patient Days	34473	28910	31435	29146	25129
Average Daily Census	94	79	86	80	69
Patient-Days of patients discharged or dead	41327	26484	36221	35393	25217
Average Length of Hospital Stay	178	148	158	184	131

TABLE 2
ADMISSIONS DURING THE YEAR: SOURCE OF PATIENTS

	Male	Female	Total
Tuberculous:			
First Admissions	41	17	58
Readmissions, to Resume Treatment	10	8	18
Transfers from other Tb. Hospitals	8	2	10
Readmissions, to Continue Treatment	5	—	5
For Review and Assessment only	56	9	65
Total	120	36	156

Non-Tuberculous:

Staff	—	2	2
Others, for investigation and treatment	26	9	35
Total	26	11	37
Total Admissions	146	47	193

TABLE 3

ADMISSIONS: DIAGNOSIS OF PATIENTS ADMITTED

TUBERCULOUS:	Male	Female	Total	Per- cent
Primary	2	6	8	5.1
Minimal	21	5	26	16.7
Moderately Advanced	39	12	51	32.7
Far Advanced	25	8	33	21.2
Pleurisy with Effusion	3	—	3	2.0
Peritonitis	—	2	2	1.3
Lymphadenitis	—	1	1	.6
Genito-Urinary	12	1	13	8.3
Bone and Joint	1	—	1	.6
Miliary	1	—	1	.6
Anthraco-silico-tuberculosis	15	—	15	9.7
(Pulmonary Tb with Occupational Disease)				
Erythema Induratum	—	1	1	.6
Laryngitis	1	—	1	.6
Total	120	36	156	100.0
NON-TUBERCULOUS:				
Staff:				
Bronchopneumonia		2	2	
Other, investigation and treatment				
Abscess, pulmonary	1	—	1	
Carcinoma, pulmonary and bronchial	4	2	6	
Carcinoma, metastatic to lungs and pleura	1	—	1	
Carcinoma, Larynx	1	—	1	
Congenital cystic disease of lung	—	1	1	
Bronchiectasis	2	1	3	
Bronchitis, chronic	1	1	2	
Bronchitis, chronic, with emphysema	4	—	4	
Empyema, post-pneumonic	—	1	1	
Fibrosis, pulmonary	3	1	4	
Fibrosis, pulmonary, post radiation	2	—	2	
Fibrosis, pulmonary, with pleural effusion	2	—	2	
Farmer's Lung	1	—	1	
Pleuritis, post-traumatic	1	—	1	
Pneumonitis	1	—	1	

Pneumoconiosis, no evidence of Tb	1	—	1
Sarcoidosis	—	1	1
No pulmonary Disease	1	1	2
	<u>26</u>	<u>11</u>	<u>37</u>
Total	<u>26</u>	<u>11</u>	<u>37</u>
Total Admissions	146	47	193

TABLE 4
ADMISSIONS: AGE AND SEX OF PATIENTS ADMITTED

Age	TUBERCULOUS			NON-TUBERCULOUS			TOTAL		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-9	2	5	7	-	-	-	2	5	7
10-19	4	7	11	1	2	3	5	9	14
20-29	8	3	11	-	1	1	8	4	12
30-39	9	2	11	3	-	3	12	2	14
40-49	19	9	28	2	2	4	21	11	32
50-59	28	5	33	10	2	12	38	7	45
60-69	24	5	29	9	2	11	33	7	40
70-over	26	-	26	1	2	3	27	2	29
Total	120	36	156	26	11	37	146	47	193

TABLE 5

RESIDENCE OF PATIENTS ADMITTED

Cape Breton County	138	
Inverness County	24	
Richmond County	9	
Victoria County	15	
Cape Breton Island		186
Antigonish County	1	
Pictou County	1	
Hants County	1	
Guysborough County	2	
Halifax County	1	
Nova Scotia Mainland		6
Ontario	1	1
Total Admissions		193

TABLE 6

SPONSORSHIP OF HOSPITALIZED PATIENTS

	In Hosp. Jan. 1/68	Admitted 1968	Discharged 1968	In Hosp. Dec. 31/68	Hosp. Days
Dept. National Health & Welfare					
(a) Immigration Medical Service	—	—	—	—	—
(b) Indian and Northern					
—Eskasoni Agency	4	26	19	11	2171
—Shubenacadie Agency	—	1	1	—	26
(c) Sick Mariners' Service	—	—	—	—	—
Dept. Veterans Affairs	—	5	5	—	277
N. S. Dept. Public Health	48	161	156	53	19241
Total	52	193	181	64	21715

TABLE 7
DISCHARGES DURING YEAR: CLASS OF PATIENTS

	Male	Female	Total
Tuberculous	121	24	145
Non-Tuberculous			
Staff	—	2	2
Other	25	9	34
Total	146	35	181

TABLE 8
DISCHARGES: ADMISSION DIAGNOSIS OF DISCHARGED TBC PATIENTS

	Male	Female	Total	Per- cent
Primary	2	2	4	2.7
Minimal	22	4	26	17.9
Moderately Advanced	38	7	45	31.0
Far Advanced	32	8	40	27.6
Genito Urinary	14	1	15	10.4
Silico Tuberculosis	13	—	13	9.0
Tuberculous Peritonitis	—	1	1	0.7
Tb. Inguinal Adenitis	—	1	1	0.7
Total	121	24	145	100.0%

TABLE 9
DISCHARGES: CLINICAL CONDITION OF PATIENTS ON DISCHARGE

	Male	Female	Total	Per- cent
Pulmonary Tuberculosis				
Inactive	32	5	37	25.5
Quiescent	32	9	41	28.2
Active Improved	30	6	36	24.8
Active Unimproved	3	—	3	2.1
Activity Undetermined	1	—	1	.7
Death:				
From Tb or Complication	4	—	4	2.7
From Unrelated Disease	2	1	3	2.1
Silico Tuberculosis	3	—	3	2.1
Extra pulmonary Tuberculosis				
Inactive	11	1	12	8.3
Quiescent	2	—	2	1.4
Active Improved	1	2	3	2.1
Active Unimproved	—	—	—	—
Death	—	—	—	—
Total	121	24	145	100.0%

Non Tuberculous				
Recovered or Improved	9	3	12	33.3
Unimproved—Investigation only	16	7	23	63.9
Dead	—	1	1	2.8
Total	25	11	36	100.0

TABLE 10

TYPE OF DISCHARGE OF PATIENTS WITH TUBERCULOSIS

	Male	Female	Total	Per- cent
On Medical Advice	95	19	114	78.6
Transfer to N. S. Sanatorium	13	3	16	11
Transfer to Other Tb Hospitals	1	—	1	.7
Irregular Discharges				
Against Advice	3	1	4	2.7
Disciplinary	—	—	—	—
Died	9	1	10	7.0
Total	121	24	145	100.0

TABLE 11

MARITAL STATUS OF DISCHARGED PATIENTS

Single	32	16	48
Married	84	9	93
Widowed	19	9	28
Separated	6	1	7
Divorced	5	—	5
Total	146	35	181

TABLE 12

RELIGION OF DISCHARGED PATIENTS

Roman Catholic	98	30	128
Church of England	9	—	9
United Church of Canada	20	2	22
Baptist	1	2	3
Presbyterian	11	1	12
Salvation Army	5	—	5
Pentecostal	1	—	1
African Orthodox	1	—	1
Total	146	35	181

TABLE 13
PATIENTS DISCHARGED—TUBERCULOSTATIC DRUGS USED
WHILE IN HOSPITAL

Streptomycin	64
Isoniazid	89
PAS	67
Cycloserine	20
Ethionamide	5
Isoxyl	4
Viomycin	2
Pyrazinamide	2

TABLE 14
PATIENTS DISCHARGED—ASSOCIATED TBC COMPLICATIONS IN TB
PATIENTS
 (for principal Tbc diagnosis refer to Table 8)

Tbc Meningitis	1	Tuberculoma of Liver	1
		Tbc Ileitis	1
Tbc Laryngitis	1		
Tbc Endobronchitis	2	Tbc Peri-renal abscess inactive . .	1
Bronchiectasis	20	Epididymitis	2
Bronchopleural fistula	7	Prostatitis	1
Spontaneous pneumothorax	2	Cystitis	5
Pleurisy with effusion, active . .	1	Ureteral Stricture	2
inactive	5	Tbc Hip	1
Tbc Empyema, active	4	Gluteal Abscess	1
inactive	2	Tbc Sternum, inactive	1

TABLE 15
PATIENTS DISCHARGED—ASSOCIATED NON-TBC
COMPLICATIONS IN TB PATIENTS

Nervous system:		Bones and Joints:	
Addiction, drug	1	Arthritis, rheumatoid	1
Alcoholism	8	Compression fracture spine . . .	2
Anxiety Reaction	1	Congenital deformity of	
Emotionally unstable		shoulder	1
personality	1	Dislocation of femur	1
Epilepsy, grand mal	1	Dupuytren's Contracture	1
Inadequate personality	2	Fracture, scaphoid	1
Mental deficiency	1	tibia	1
Mongolism	1	Instability of knee joint	
Personality pattern		due to trauma	1
disturbance	2	Osteoarthritis	7
Schizoid personality	1	Osteomyelitis	1
Schizophrenic reaction	5	Periarticular fibrositis	3

Psychotic Depressive			
Reaction	2	E.E.N.T.	
Diseases of the skin:		Cataract, diabetic	1
Dermatitis, seborrhoeic	1	Blindness, traumatic	1
Dermatitis, varicose	1	Glaucoma	1
Scabies	1	Myopia	1
Eczema	1	Myringitis	1
		Otitis Media	1
Systemic:			
Drug allergy: ampicillin	1	Respiratory System:	
cycloserine	1	Atelectasis	1
isoniazid	2	Bronchial Asthma	2
PAS	4	Bronchitis	8
penicillin	1	Bronchiectasis	5
streptomycin	7	Bronchopneumonia	14
Lues, latent	2	Bronchogenic carcinoma	1
Malnutrition	1	Empyema	2
Respiratory Acidosis	3	Emphysema, bullous	2
Emphysema, compensatory	6	Gastrointestinal System:	
Emphysema, obstructive	9	Alveolitis	1
Endobronchitis	1	Cholelithiasis	2
Pneumonoconiosis	7	Chronic cholecystitis	1
Pulmonary Fibrosis	4	Gastritis	1
Rhinitis	1	Hernia, inguinal	1
Sinusitis	1	umbilical	2
		Ulcer, duodenal	1
		gastric	5
Cardiovascular:			
Arteriosclerosis		Genitourinary System:	
Generalized	7	Adenocarcinoma of Kidney	1
Cerebral	1	Congenital absence of kidney	1
Myocardial Infarction	2	Supernumary kidney	1
Heart disease	12	Double Ureter	1
Hypertensive Heart disease	7	Chronic Prostatitis	1
Essential Hypertension	2	Chronic Cystitis	1
Congestive Heart Failure	2	Chronic Urethritis	1
Cor Pulmonale	4	Urethral Stricture	2
Bundle Branch Block	3	Urethroperineal fistula	1
Rheumatic Heart Disease	1	Perineal Abscess	1
Raynaud's Disease	1	Glomerulonephritis	1
Secondary Anaemia	2	Hydronephrosis	2
Pernicious Anaemia	1	Infarction of Kidney	1
Thrombophlebitis	1	Cortical Necrosis, Kidney	1
Varicose Veins	1	Nephritis	2
		Prostatic Hypertrophy benign	1
Hormonal System:		Renal Calculus	1
Diabetes Mellitus	5	Uremia	1
Menopausal syndrome	1	Vaginitis, senile	1
		Dysmenorrhoea	1

TABLE 16 REPORT OF OPERATING ROOM DEPARTMENT PROCEDURES:

BY OUR CONSULTANTS:

	Major Surgery	Minor Surgery	Other
E.E.N.T. Procedures (Dr. W. MacIsaac)			
Bronchoscopies		22	8
E.E.N.T. Exams, consultations, etc.			
UROLOGY (Dr. D. B. Archibald)			
Nephrectomy (in Sydney City Hosp.)	1	27	
Cystoscopies		10	
Urethral Dilatations			20
Other Exams and Consultations			

OTHER CONSULTANTS

Dental		1	
BY OUR FULL-TIME MEDICAL STAFF:			
Biopsy, Scalene Node		7	
Pleural		7	
Bone Marrow		1	
Aspirations, Chest		103	
Other		3	
Repair, lacerations		3	
Plaster Cast		3	
Exam Sigmoidoscopic and Proctoscopic		2	
Caloric Testing			4
Other			13

NURSING PROCEDURES:

Dressings, etc.		10	
Intramuscular injections, ear wash-outs, etc. (done in O.R., suite, excluding work done in wards)		26	
Post bronchographic postural drainage		13	

ANAESTHESIA

General		1	
Spinal		1	
Local or Topical			Approx 200

TABLE 17

REPORT OF CLINIC SERVICES

OUT-PATIENT CHEST CLINIC		
D.V.A. — Patients	119	
Visits		146
OTHER — Patients	96	
Visits		195
STAFF CLINIC — Patients	78	
Visits		202
Tuberculin: Heaf		42
PPD — 1 T.U.		11
PPD — 250 T.U.		22
B.C.G.		10
Chest x-rays		570
Other x-rays		10



TABLE 18

LABORATORY REPORT: WORK PERFORMED

	Patients	Out-Patients	Total Exams	Unit Value	Total Units
URINALYSIS					
Routine	730	16	746	2	1492
Urobilinogen	1		1	2	2
Each Constituent	1		1	1	1
					<u>1495</u>
BIOCHEMISTRY					
Glucose	314	9	323	2	646
Glucose Tolerance Test	5		5	10	50
Bilirubin (Direct + Total)	6	1	7	4	28
Non-Protein Nitrogen	354	2	356	4	1424
Acid Phosphatase	2		2	6	12
Alkaline Phosphatase	334	51	385	6	2310
Protein (Total + Differential)	6	1	7	6	42
Urea Nitrogen	354	3	357	4	1428
Occult Blood	4	1	5	1	5
Biochemistry Collections	981	91	1072	1	1072
					<u>7017</u>
HAEMATOLOGY					
Bleeding Time	3		3	1	3
Clotting Time	3		3	2	6
Differential	735	314	1049	2	2098
Haematocrit	720	314	1034	1	1034
Haemoglobin	737	325	1062	1	1062

Platelet Count	1	1	3	3
Prothrombin Time		2	2	4
Red Blood Count		1	1	1
Sedimentation Rate	315	1036	1	1036
White Blood Count	315	1066	1	1066
Haematology Collections	326	1119	1	1119
				<u>7432</u>

BACTERIOLOGY

T.B. Smears (Sputa)	158	158	3	474
T.B. Slide (other)	1	1	4	4
T.B. Concentrations	637	637	4	<u>2548</u>
				<u>3026</u>

CEREBROSPINAL FLUID

Cell Count	6	6	1	6
Chloride	6	6	3	18
Protein	6	6	2	12
Sugar	6	6	2	12
				<u>48</u>
				<u>19018</u>

TOTAL UNITS WORK PERFORMED

In-Patients	16314	units
Out-Patients	<u>2704</u>	<u>units</u>
		19018

TABLE 19

LABORATORY REPORT: WORK REFERRED TO OTHER LABORATORIES

	Patients	Out-Patients	Total Exams	Unit Value	Total Units
BACTERIOLOGY					
T.B. Cultures	2557		2557	6	15342
Fungi Cultures	13		13	7	91
Other Cultures—sputum	148		148	6	888
urine	145		145	6	870
Miscellaneous	99	2	101	6	606
Sensitivity, non-Tb.	145	4	149	4	596
Ova Concentration	3		3	4	12
					<u>18405</u>
BIOCHEMISTRY					
Amylase	1		1	4	4
Bilirubin, direct and total	2		2	4	8
Calcium	107	10	117	4	468
Cephalin-Cholesterol Flocc		1	1	2	2
Chloride	108	6	114	3	342
Cholesterol	2		2	5	10
C02 Combining Power	24		24	4	96
C02 Content (Astrup)	62		62	8	496
Creatinine	18		18	3	54
Icterus Index	1		1	1	1
Phosphorus	106	7	113	4	452
Potassium	108	7	115	3	345
Thyroxine	6	5	11	10	110
Total Protein + Diff.	1		1	6	6
Sodium	108	6	114	3	342
Protein Electrophoresis		1	1	6	6

Thymol Turbidity	1	1	2	
Transaminase	2	5	10	
Uric Acid	4	3	12	
			<u>2766</u>	
HAEMATATOLOGY				
Bone Marrow Film	1	7	7	
Blood Film	2	2	4	
Cross Match	1	4	4	
			<u>15</u>	
CEREBROSPINAL FLUID				
Mastic Curve	3	2	6	
HISTOLOGY				
Surgical Specimens	19	8	152	
Cytology, non cervical	198	5	990	
			<u>1142</u>	
SEROLOGY				
V.D.R.L.	209	1	209	
Wassermann	29	2	58	
V.D.R.L. Quantitative	3	2	6	
			<u>273</u>	
URINALYSIS				
Pregnancy Test	1	2	2	
Porphyris		3	3	
			<u>5</u>	
			<u>22612</u>	
TOTAL UNITS REFERRED OUT				
In-Patients	22396	units		
Out-Patients	<u>216</u>	units		
				22612

TABLE 20

REPORT OF X-RAY DEPARTMENT

	Patients	Out Patients	Staff	Total Exams	T.M. Units	K.M. Units
Chest, single	427	327	570	1324	2648	2782
multiple	203	8	1	212	636	424
plainigraphic series	85	14		99	495	495
Bronchogram, unilateral	10			10	40	40
bilateral	3			3	15	18
Abdomen	4		1	5	8	8
Gall Bladder	2			2	8	6
Pyelogram, I.V.	9			9	54	27
Retrograde	19		1	20	80	40
Bones and Joints						
Ribs and shoulders	6			6	18	12
Skull, sinuses		1	1	2	8	6
Hips and pelvis	8	1		9	18	18
Spinal Column	11	4	1	16	64	48
Extremities	21	9	5	35	70	70
Total Exams	808	364	580	1752	4162	3994
Electrocardiogram	97	10		107		
Pulmonary Function	39	1		40		